

Atty. Dkt. No.: EPI3007F
(formerly TSRI 184.2C2)

immunoglobulin encoded by said nucleotide sequence, wherein the leader sequence forms a secretion signal that is cleaved from each of said immunoglobulin light and heavy chain following proteolytic processing; or

(ii) nucleotide sequences encoding a single polypeptide immunoglobulin comprising an immunoglobulin heavy chain and an immunoglobulin light chain and further containing nucleotide sequence encoding a leader sequence for said polypeptide, and antigen-specific single polypeptide immunoglobulin encoded by said nucleotide sequence wherein the leader sequence forms a secretion signal that is cleaved from said polypeptide following proteolytic processing;

- (b) isolating antigen specific immunoglobulin from the plant cells; and
(c) administering to said subject a prophylactic amount of said antigen

specific immunoglobulin.

84. (New) The method of claim 83, wherein said antibody is full length.

85. (New) The method of claim 83, wherein said immunoglobulin is a fragment of a full-length immunoglobulin.

86. (New) The method of claim 83, wherein said heavy chain includes at least a portion of a heavy chain constant region and wherein said constant region is from an IgM antibody.

87. (New) The method of claim 83, wherein said heavy chain includes at least a portion of a constant region and wherein said constant region is from an IgG antibody.

88. (New) The method of claim 83, wherein said heavy chain includes at least a portion of a constant region and wherein said constant region is from an IgG antibody.

89. (New) The method of claim 83, wherein said preselected antigen is from a pathogen.

90. (New) The method of claim 89, wherein said pathogen is selected from bacteria, viruses, or parasites.

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91. (New) The method of claim 89, wherein said pathogen is E. Coli, Salmonellae, Vibrio cholerae, or Salmonellae typhimurium.

Please amend claims 13, 41 and 66 as follows:

13. (Amended three times) A method of passively immunizing a human or non-human animal subject against a preselected antigen, said method comprising administering to said subject a prophylactic amount of a formulation comprising an antigen-specific immunoglobulin molecule which specifically binds to said preselected antigen or immunologically active fragment of the antibody, said formulation obtained by processing plant cells containing nucleotide sequences encoding an immunoglobulin heavy chain polypeptide and an immunoglobulin light chain polypeptide wherein said nucleotide sequences also encodes a leader sequence for each polypeptide; and antigen specific immunoglobulin product encoded by said nucleotide sequences, wherein each leader sequence forms a secretion signal that is cleaved from each of said immunoglobulin heavy chain and light chain polypeptides following proteolytic processing.

41. (Amended) A method of passively immunizing a human or non-human animal subject against a preselected antigen, said method comprising administering to said subject a formulation comprising a prophylactic amount of an antigen-specific immunoglobulin, said formulation obtained by processing plant cells containing nucleotide sequences encoding an immunoglobulin heavy chain and an immunoglobulin light chain wherein said nucleotide sequences also encode a leader sequence for said heavy chain and said light chain and wherein each leader sequence forms a secretion signal that is cleaved from each of said immunoglobulin heavy chain and light chain polypeptides following proteolytic processing.

66. (Amended) A method of passively immunizing a human or non-human animal subject against a preselected antigen, said method comprising administering to said subject a prophylactic amount of a formulation comprising a single polypeptide antigen-specific immunoglobulin, said formulation obtained by processing plant cells, said plant cells containing nucleotide sequences encoding a single polypeptide comprising an immunoglobulin heavy chain and an immunoglobulin light chain wherein said nucleotide